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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,597	01/18/2002	Lothar Finzel	44316/242361	3095

21495 7590 04/30/2003

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EXAMINER

MAYO, TARA L

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 04/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,597

Applicant(s)

FINZEL ET AL.

Examiner

Tara L. Mayo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 123-167 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 123-160 is/are allowed.
- 6) ☒ Claim(s) 161 and 164-167 is/are rejected.
- 7) ☒ Claim(s) 162 and 163 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The references lined through on the Information Disclosure Statement (paper no. 10) filed 21 January 2003 have already been considered by the Examiner.

Claim Rejections - 35 USC § 112

2. The prior rejections of claims 123 through 143, 166, and 167 under 35 USC §112, second paragraph have been overcome by the response (paper no. 9) filed 24 January 2003.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 161 and 165 through 167 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaylin (U.S. Patent No. 4,896,997) in view of Kasiewicz (U.S. Patent No. 4,437,789).

Gaylin '997, as seen in Figure 5, discloses a fiber optic installation (col. 1, lines 6 through 13) comprising:

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with regard to claim 161,

an elongate body (30) defining at least one lengthwise extending duct (24) and adapted to be disposed within a channel (85) defined by a surface (13);

at least one optical waveguide (contained within element 24; col. 4, lines 6 through 8) disposed within a respective duct defined by said elongate body; and

a filling material (col. 4, lines 50 through 52) overlying said elongate body and at least partially filling the channel;

with regard to claim 166,

wherein said elongate body defines a slot opening (30a) into the duct (col. 3, lines 59 through 61); and

with regard to claim 167,

further comprising a cable in the duct, said cable comprising a tube (24) and said at least one optical waveguide disposed within said tube.

Gaylin '997 discloses all of the features of the claimed invention with the exception(s) of:

with regard to claim 161,

the filling material being selected from the group consisting of bitumen and hot melt adhesive; and

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with regard to claim 165,

the elongate body being sheathed by the filling material.

Kasiewicz '789, as seen in Figures 5 through 8, discloses a method and means for protecting buried fiber optic cable (col. 4, lines 33 through 37) from rodent damage, the means comprising bitumen (col. 2, line 68 through col. 3, line 6) applied so as to sheath the cable.

With regard to claims 161 and 165, it would have been obvious to one of ordinary skill in the art of cable laying at the time of invention to modify the structure shown by Gaylin '997 such that it would include the bitumen filling material sheathed around the elongate body as taught by Kasiewicz '789 to protect the cable from rodent attack.

With regard to claim 167, the recitation of the cable being inserted into the duct via the slot has not been given patentable weight. It has been held that process limitations in an apparatus claim do not impart patentability. In re Dike, 157 USPQ 581; In re Stephens, 145 USPQ 656; and In re Dilnot, 133 USPQ 289.

5. Claim 164 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gaylin (U.S. Patent No. 4,896,997) in view of Kasiewicz (U.S. Patent No. 4,437,789) as applied to claim 161 above, and further in view of Crumpler (U.S. Patent No. 3,219,368).

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Gaylin '997 in view of Kasiewicz '789 discloses all of the features of the claimed invention with the exception(s) of:

with regard to claim 164,

the elongate body comprising a plurality of barbs for engaging walls that define the channel.

Crumpler '368, as seen in Figure 12, shows a buried elongate body (10) comprising a plurality of barbs (12) to prevent rolling and add strength (col. 3, lines 41 through 42).

With regard to claim 164, it would have been obvious to one of ordinary skill in the art of conduits at the time of invention to modify the device shown by Gaylin '997 in view of Kasiewicz '789 with barbs as taught by Crumpler '368 to prevent rolling and add strength to the elongate body.

Allowable Subject Matter

6. Claims 123 through 160 are allowed.

7. Claims 162 and 163 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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8. The following is a statement of reasons for the indication of allowable subject matter:

The claimed invention of the instant application is related specifically to the art of microcabling or minicabling, a relatively new cable laying technology directed solely to the laying of optical waveguides. Prior art structures required costly excavation of large surface areas and resulted in millions of dollars worth of "dark" (unused) optical waveguides because access to the buried waveguides was, at best, limited. Microcabling has revolutionized the fiber optic cable laying industry by causing minimal disturbance to existing paving structures. Additionally, no art disclosing the technique of microcabling could be found that predates the priority date of the instant application.

With regard to claims 123 through 143, the prior art fails to teach or adequately suggest a fiber optic cable installation structure comprising the salient feature of a surface defining a channel having a width of no more than 12 mm.

With regard to claims 144 through 160, modification of prior art references to include a release element is precluded in that access to buried prior art fiber optic cable installation structures required massive excavation. Release elements, as discussed in the Specification on page 42 at lines 20 through 35, to access buried optical waveguides only became applicable with the introduction of microcabling.

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

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Conclusion

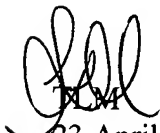
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

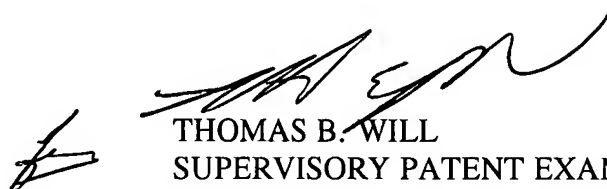
O'Riordan (U.S. Patent No. 5,281,054) shows a combination plow and cable installing device for forming a trench approximately 50 mm to 70 mm wide.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 703-305-3019. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703-308-3870. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.


TLM
23 April 2003


THOMAS B. WILL
SUPERVISORY PATENT EXAMINER
GROUP 3600